Problem B. Counting Roads

Time limit 2000 ms Mem limit 262144 kB

Problem Statement

There are N cities and M roads. The i-th road $(1 \le i \le M)$ connects two cities a_i and b_i $(1 \le a_i, b_i \le N)$ bidirectionally. There may be more than one road that connects the same pair of two cities. For each city, how many roads are connected to the city?

Constraints

- 2 < N, M < 50
- $1 \leq a_i, b_i \leq N$
- $a_i \neq b_i$
- All input values are integers.

Input

Input is given from Standard Input in the following format:

Output

Print the answer in N lines. In the i-th line $(1 \le i \le N)$, print the number of roads connected to city i.

Sample 1

Input	Output
4 3	2
1 2	2
2 3	1
1 4	1

- City 1 is connected to the 1-st and 3-rd roads.
- City 2 is connected to the 1-st and 2-nd roads.
- $\bullet~$ City 3 is connected to the 2-nd road.
- City 4 is connected to the 3-rd road.

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Sample 2

Input	Output
2 5	5
1 2	5
2 1	
1 2	
2 1	
1 2	

Sample 3

Input	Output
8 8	3
1 2	3
3 4	2
1 5	2
2 8	2
3 7	1
5 2	1
4 1	2
6 8	